

Listing of Claims

1. (Previously presented): An immunogenic conjugate comprising a synthetic homopolymer of poly- γ -glutamic acid (γ PGA) polypeptide covalently linked to a carrier, wherein the conjugate elicits an immune response against poly- γ -glutamic acid (γ PGA) polypeptide in a subject.
2. (Previously presented): The conjugate of claim 1, wherein the synthetic homopolymer of γ PGA polypeptide comprises 5-20 glutamic acid residues.
3. (Previously presented): The conjugate of claim 1, wherein the synthetic homopolymer of γ PGA polypeptide comprises 10-15 glutamic acid residues.
4. (Currently amended): The conjugate of claim 1, wherein the synthetic homopolymer of γ PGA polypeptide is a decameric γ PGA polypeptide.
5. (Previously presented): The conjugate of claim 1, wherein the carrier is selected from the group consisting of: (a) recombinant *B. anthracis* protective antigen, (b) recombinant *P. aeruginosa* exotoxin A, (c) tetanus toxoid, (d) diphtheria toxoid, (e) pertussis toxoid, (f) *C. perfringens* toxoid, (g) hepatitis B surface antigen, (h) hepatitis B core antigen, (i) keyhole limpet hemocyanin, (j) horseshoe crab hemocyanin, (k) edestin, (l) mammalian serum albumins, (m) mammalian immunoglobulins, and (n) combinations of two or more thereof.
6. (Original): The conjugate of claim 1, wherein the carrier comprises recombinant *B. anthracis* protective antigen.
7. (Canceled)
8. (Previously presented): The conjugate of claim 1, wherein the synthetic homopolymer of poly- γ -glutamic acid (γ PGA) polypeptide is the D-conformation, the L-conformation, or a mixture of the D-conformation and the L-conformation.

9. (Previously presented): The conjugate of claim 1, wherein the synthetic homopolymer of poly- γ -glutamic acid (γ PGA) polypeptide is a γ DPGA polypeptide.

10. (Previously presented): The conjugate of claim 1, wherein the synthetic homopolymer of poly- γ -glutamic acid (γ PGA) polypeptide is a decameric γ DPGA polypeptide and the carrier comprises recombinant *B. anthracis* protective antigen.

11. (Previously presented): The conjugate of claim 1, wherein the carrier is covalently linked to either the amino or carboxyl terminus of the synthetic homopolymer of poly- γ -glutamic acid (γ PGA) polypeptide.

12. (Previously presented): The conjugate of claim 1, wherein the carrier is covalently linked to the synthetic homopolymer of poly- γ -glutamic acid (γ PGA) polypeptide via a thioether, disulfide, or amide bond.

13. (Previously presented): The conjugate of claim 1, wherein the density of the synthetic homopolymer of poly- γ -glutamic acid (γ PGA) polypeptide to carrier is between about 5:1 and about 32:1.

14. (Previously presented): The conjugate of claim 1, wherein the density of the synthetic homopolymer of poly- γ -glutamic acid (γ PGA) polypeptide to carrier is between about 10:1 and about 15:1.

15. (Previously presented): The conjugate of claim 1, wherein the synthetic homopolymer of γ PGA polypeptide is covalently linked to the carrier via an aldehyde (CHO)/adipic acid hydrazide (AH) linkage.

16. (Previously presented): A composition comprising the conjugate of claim 1 and a pharmaceutically acceptable vehicle.

17. (Original): The composition of claim 16, further comprising an adjuvant.

18. (Previously presented): A composition comprising the conjugate of claim 9 and a pharmaceutically acceptable vehicle.

19. (Original): The composition of claim 18, further comprising an adjuvant.

20. (Previously presented): A method of eliciting an immune response against a *Bacillus* antigenic epitope in a subject, comprising introducing into the subject the composition of claim 16, thereby eliciting an immune response in the subject.

21. (Canceled)

22. (Currently amended): The method of claim 20, ~~wherein the further comprising eliciting an immune response is elicited against the poly γ -glutamic acid (γ PGA) polypeptide and the carrier.~~

23-33. (Canceled)

34. (Previously presented): An immunogenic conjugate comprising a *Bacillus* poly- γ -glutamic acid (γ PGA) polypeptide covalently linked to a carrier, wherein the carrier is selected from the group consisting of: (a) recombinant *B. anthracis* protective antigen, (b) recombinant *P. aeruginosa* exotoxin A, (c) tetanus toxoid, (d) diphtheria toxoid, (e) pertussis toxoid, (f) *C. perfringens* toxoid, (g) hepatitis B surface antigen, (h) hepatitis B core antigen, (i) keyhole limpet hemocyanin, (j) horseshoe crab hemocyanin, (k) edestin, (l) mammalian serum albumins, and (m) combinations thereof, and wherein the conjugate elicits an immune response against *Bacillus* poly- γ -glutamic acid (γ PGA) polypeptide in a subject.

35. (Previously presented): The conjugate of claim 34, wherein the carrier comprises recombinant *B. anthracis* protective antigen.

36. (Previously presented): The conjugate of claim 34, wherein the *Bacillus* γ PGA

polypeptide comprises a *B. anthracis*, *B. licheniformis*, *B. pumilus*, or *B. subtilis* γ PGA polypeptide.

37. (Previously presented): The conjugate of claim 34, wherein the *Bacillus* γ PGA polypeptide is the D-conformation, the L-conformation, or a mixture of the D-conformation and the L-conformation.

38. (Previously presented): The conjugate of claim 34, wherein the *Bacillus* γ PGA polypeptide is a *B. anthracis* capsular γ DPA polypeptide.

39. (Previously presented): The conjugate of claim 34, wherein the carrier is covalently linked to either the amino or carboxyl terminus of the *Bacillus* γ PGA polypeptide.

40. (Previously presented): The conjugate of claim 34, wherein the carrier is covalently linked to the *Bacillus* γ PGA polypeptide via a thioether, disulfide, or amide bond.

41. (Previously presented): The conjugate of claim 34, wherein the *Bacillus* γ PGA polypeptide is covalently linked to the carrier via an aldehyde (CHO)/adipic acid hydrazide (AH) linkage.

42. (Previously presented): A composition comprising the conjugate of claim 34 and a pharmaceutically acceptable vehicle.

43. (Previously presented): The composition of claim 42, further comprising an adjuvant.

44. (Previously presented): A method of eliciting an immune response against a *Bacillus* antigenic epitope in a subject, comprising introducing into the subject the composition of claim 42, thereby eliciting an immune response in the subject.

45. (Canceled)

46. (Currently amended): The method of claim 44, wherein the further comprising eliciting an immune response is elicited against the *Bacillus* capsular poly γ -glutamic acid (γ PGA) polypeptide and the carrier.

47. (Previously presented): The conjugate of claim 1, wherein the carrier is a polysaccharide or a polypeptide.

48. (Previously presented): The conjugate of claim 1, wherein the carrier is a bacterial toxin or a viral protein.

49. (Previously presented): The conjugate of claim 5, wherein the carrier is selected from the group consisting of (a) recombinant *B. anthracis* protective antigen, (b) recombinant *P. aeruginosa* exotoxin A, (c) tetanus toxoid, (d) diphtheria toxoid, (e) pertussis toxoid, (f) *C. perfringens* toxoid, (g) hepatitis B surface antigen, and (h) hepatitis B core antigen.

50. (Previously presented): The conjugate of claim 9, wherein the carrier is *B. anthracis* protective antigen, and the conjugate elicits an immune response against γ DPA and against *B. anthracis* protective antigen.

51-52. (Canceled).

53. (Currently amended): The method of claim 20, wherein the immune response elicits against the *Bacillus* antigenic epitope in the subject comprises IgG anti- *B. anthracis* γ PGA antibodies, and further comprising eliciting an immune response against the carrier in the subject, wherein the immune response against the carrier comprises IgG anti-carrier antibodies in the subject.

54. (Previously presented): The conjugate of claim 34, wherein the carrier is selected from the group consisting of (a) recombinant *B. anthracis* protective antigen, (b) recombinant *P. aeruginosa* exotoxin A, (c) tetanus toxoid, (d) diphtheria toxoid, (e) pertussis toxoid, (f) *C. perfringens* toxoid, (g) hepatitis B surface antigen, and (h) hepatitis B core antigen.

55. (Canceled)

56. (Currently amended): The method of claim 44, wherein the immune response elicits against the *Bacillus* antigenic epitope in the subject comprises IgG anti- *B. anthracis* γ PGA antibodies, and further comprising eliciting an immune response against the carrier in the subject, wherein the immune response against the carrier comprises IgG anti-carrier antibodies in the subject.

57. (Previously presented): The conjugate of claim 1, wherein the conjugate includes a plurality of synthetic homopolymer of γ PGA polypeptide chains per carrier molecule.

58. (Previously presented): The conjugate of claim 1, wherein the conjugate has a density of synthetic homopolymer of γ PGA chains to carrier molecule of at least about 5:1.

59. (Previously presented): The conjugate of claim 34, wherein the conjugate includes a plurality of *Bacillus* γ PGA polypeptide chains per carrier molecule.

60. (Previously presented): The conjugate of claim 34, wherein the conjugate has a density of *Bacillus* γ PGA chains to carrier molecule of at least about 5:1.

61. (Previously presented): An immunogenic conjugate comprising poly- γ -glutamic acid (γ PGA) covalently linked to a carrier, wherein the conjugate elicits an immune response against poly- γ -glutamic acid (γ PGA) in a subject, and the conjugate has a density of γ PGA chains to carrier molecule of at least about 5:1.

62. (Previously presented): The conjugate of claim 57, wherein the carrier is a polymeric carrier.

63. (Previously presented): The conjugate of claim 58, wherein the carrier is a polymeric carrier.